

ICT Literacy Map

DESIGNED IN COOPERATION WITH THE NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS

ICT Literacy Maps are the result of hundreds of hours of research, development and feedback from educators and business leaders across the nation. The Partnership has issued ICT Literacy Maps for the core subjects of Geography, Math, English and Science. These tools are available at www.21stcenturyskills.org/matrices/.

The Partnership for 21st Century Skills advocates for the integration of Information and Communication Technology (ICT) Literacy into K-12 education so that students can learn and achieve in the core academic subjects at much higher levels. The Partnership defines ICT Literacy as the use of 21st century tools to perform learning skills.

The Partnership has forged alliances with key national organizations that represent the core academic subjects, including English, Math, Science and Geography. As a result of these collaborations, the Partnership has developed a series of ICT Literacy Maps that illustrate the intersection between ICT Literacy and core academic subjects. The maps enable educators, administrators and policymakers to gain concrete examples of how ICT Literacy can be integrated into core subjects.

LEARNING SKILLS FOR INFORMATION, COMMUNICATION, AND MEDIA LITERACY			
Communication Skills			
Understanding, managing, and creating effective communications: orally, written, using multimedia.			
	4th Grade	8th Grade	12th Grade
21st Century Tools for: Communication, Information Processing, and Research	Word processing programs, graphic programs, presentation software, desktop publishing programs	Word processing programs, graphic programs, presentation software, desktop publishing programs	Word processing programs, graphic programs, presentation software, desktop publishing programs
SAMPLE Student Outcomes for: Accessing, Processing, Managing, Integrating and Communicating Information	<ul style="list-style-type: none">Present mathematical information in an oral report accompanied by charts and graphs.Construct charts and graphs to display mathematical information such as survey data.Use presentation software to present data used in a graph or project (such as a budget, scientific report, or economic analysis).	<ul style="list-style-type: none">Prepare oral presentations of group math projects that demonstrate conceptual understanding as well as application in a specific context.Present written explanation of problem solving process and solution with included diagrams, tables, charts, and graphs as needed.Use linked table, graph, and symbolic representations (as can be displayed in a spreadsheet) to explain how components of a real-world situation are connected and how changes impact the entire system.	<ul style="list-style-type: none">Give an oral presentation using the language of mathematics to express mathematical ideas precisely to peers and teacher in content specific and applied settings.Create a written argument that demonstrates the development of a mathematical conjecture and creates a convincing proof of its validity or disproof.Create a presentation that uses dynamic images to illustrate a mathematical concept, connection, or problem and its applicability to a real-world context.

A Learning Skill
+ B 21st Century Tool
= C ICT Literacy

An example from the Math ICT Literacy Map illustrates sample outcomes for teaching communication skills.